

A NEW SPECIES OF THE GENUS *Miagrammopes* (ARACHNIDA: ARANEAE: ULOBORIDAE) FROM INDIA

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ABSTRACT

A new species of genus *Miagrammopes* from India is reported. Female specimen was collected from comparatively dry area of Melghat region of Satpuda Range.

Keywords: Araneae, Uloboridae, *Miagrammopes* new species, India,

INTRODUCTION

Genus *Miagrammopes* O. Pickard-Cambridge, 1870 presently includes 65 species (World Spider Catalogue, NMBE 22 December, 2015) and 8 species are recorded from India till date.. This species is the new addition to the World.

MATERIALS AND METHODS

Female was collected by hand at night hours during December, 2014 from Melghat region of Maharashtra, India. Photographs of live specimens were taken with Fugi camera. The material was preserved in 70% alcohol with all legs spread properly. Female epigyne was cleared in situ with 1% KOH. Epigynum after clearance becomes much transparent in ventral view as well as dorsal view. All measurements are in mm. Leg measurements are given (including Coxa, Trochanter, Femur, Patella, Tibia, Metatarsus and Tarsus). The terms used in the genital descriptions follow Levi (1982).

Abbreviations used: RB: Retrolateral bursa; CT: Connecting duct; PB: Prolateral bursa; Cd: Copulatory duct; Fd: Fertilization duct; Ef: Epigastric furrow.

Taxonomy

Uloboridae Thorell, 1869

Miagrammopes O. Pickard-Cambridge, 1870

Miagrammopes satpudaensis sp. nov.

(Figures: 1-5)

Material Examined: Holotype Female

Male unknown.

Diagnosis: The species resembles *Miagrammopes paraorientalis* Dong, Zhu & Yoshida, 2005, but differs in following characters:

Prolateral bursa of spermathecae oval

Distance between both the bursa is significantly more

Connecting tube of both the bursa is comparatively curved and of uneven diameter.

Etymology: Species is named after the study area, Satpuda Landscape.

General Description: The spider as compared to other genera of the family shows an elongated, slender body, resembling that of Tetragnatha. Abdomen as well as carapace appears fused. The body is covered with scattered strong spines. The carapace and abdomen elongated. The first pair of legs very lengthy and is stretched in front. Abdomen also shows rudimentary humps.



Figure - 1, *Miagrammopes satpudaensis* sp. nov.
Habitus with egg sac



Figure - 2, *Miagrammopes satpudaensis* sp. nov.
Cephalothorax and abdomen



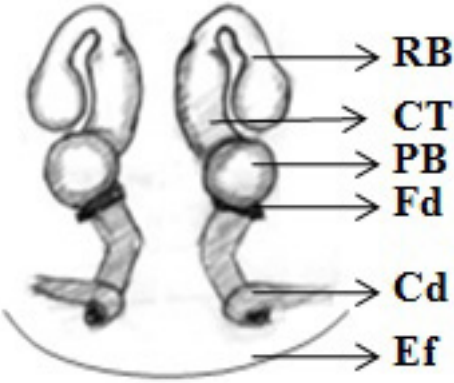
Figure - 3, Epigyne (Ventral view)



Figure - 4, Epigyne (Dorsal view)

Figure - 5, Epigyne (Dorsal view)

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RB: Retrolateral bursa;
CT: Connecting duct;
PB: Prolateral bursa;
Cd: Copulatory duct;
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Total Body Length: 13.10mm., Carapace (L: 3.14; W: 1.67); Abdomen (L: 9.82; W: 1.66);

Cephalothorax: The cephalothorax of this particular spider is elongated nearly square, dark nearly brown. Cephalic region comparatively broad and anteriorly rounded while thoracic region truncated behind. The surface is furnished by brown hairs. Eyes unequal in size, four in number with anterior row of eyes lost, posterior row slightly recurved, with median eyes widely separated. Clypeus broad, sloping, equal in width and app. twice the diameter of posterior median eyes. Sternum elongated, divided into two unequal sternites seemingly joined to carapace between second and third coxae by narrow sclerites.

Mouthparts: Well developed chelicerae, lacking condyle and with a small fang. Maxillae on the other hand, elongated, converging and slightly compressed in the middle. Labium elongated nearly triangular and pointed at the apex.

Legs quite long, three clawed with 1st pair longest having laterally compressed apical segments, 2nd and 3rd pairs short and thin, 4th pair long, laterally compressed, legs quite hairy with a bunch of modified sensory hairs on metatarsus segment of leg I. Trochanters of 1st and 4th legs strongly developed, exceeding coxae in length. Fourth metatarsus laterally compressed, with ventral comb of short spines, Calamistrum a broad lobe with entire spinning field, consisting of single, sinuous series of curved bristles set on thin keel on dorsum of segment and is occupying most of length of compressed fourth metatarsus. Female palp well developed and clawed.

Leg measurements:

I: 11.36 (0.60, 0.43, 3.07, 0.96, 3.09, 3.03, 0.18); II :5.52 (0.35, 0.31, 1.22, 0.75, 1.59, 1.21, 0.09); III: 4.09 (0.28, 0.28, 0.80, 0.57, 1.17, 0.92, 0.05); IV: 9.42 (0.41, 0.39, 2.95, 0.85, 2.87, 1.83, 0.12).

Leg formula- I, IV, II, III.

Abdomen: Abdomen dusky, elongated to nearly tubular, clothed with hairs. Dorsum thickly furnished with hairs and uneven rudimentary humps. Ventrums, comparatively brownish, clothed with fine hairs and spinnerets comparatively widely spaced with prominent cribellum.

Genitalia: Epigynum showing narrow ducts and the prolateral bursa of spermathecae oval and placed near the top of retrolateral bursa, the in between distance of both the bursa is significantly more and the tube connecting both the bursa is comparatively curved and of uneven diameter.

Remarks: The spider was collected resting on tree branches of *Acacia* sp. holding its cylindrical egg sac. The egg sac is app. of 3-4cm length and of black to deep brown coloured. This tubular sac consists of two columns of eggs and the number of eggs is app. 100. Female holds the sac with the help of 1st & 2nd pair of legs, especially with the 2nd pair, until spiderlings emerge and disperse. Holotype is deposited in the collection of the Indian Society of Arachnology at FTI Chikhaldara.

REFERENCES

- Bösenberg, W. and E. Strand. 1906.** Japanische Spinnen. Abhandlungen der Senckenbergischen Naturforschenden Gesellschaft 30: 93-422.
- Chen, Z. F. and Z. H. Zhang. 1991.** Fauna of Zhejiang: Araneida. Zhejiang Science and Technology Publishing House, 356 pp.
- Chikuni, Y. 1989b.** Pictorial Encyclopedia of Spiders in Japan. Kaisei-sha Publishing Co., Tokyo, 310 pp.
- Dong, S. J., M.S. Zhu and H. Yoshida. 2005.** Twelve new species of the family Uloboridae

- (Arachnida: Araneae) from China. Acta Arachnologica, Tokyo 54: 81-92.
- Hu, J. L. 1984.** The Chinese spiders collected from the fields and the forests. Tianjin Press of Science and Techniques, 482 pp.
- Kim, J. P. and M.S. Lee, 1999.** A revisional study of the Korean spiders, family Uloboridae (Thorell, 1869) (Arachnida: Araneae). Korean Arachnology 15(2): 1-30.
- Kim, S. T. and S. Y. Lee. 2013.** Arthropoda: Arachnida: Araneae: Mimetidae, Uloboridae, Theridiosomatidae, Tetragnathidae, Nephilidae, Pisauridae, Gnaphosidae. Invertebrate Fauna of Korea 21(23): 1-183.
- Lehtinen, P. T. 1967.** Classification of the cribellate spiders and some allied families, with notes on the evolution of the suborder Araneomorpha. Annales Zoologici Fennici 4: 199-468. [second pdf: index and outline by V. D. Roth (unpubl.)]
- Namkung, J. 2003.** The Spiders of Korea, 2nd. ed. Kyo-Hak Publishing Co., Seoul, 648 pp.
- Opell, B. D. 1984.** Phylogenetic review of the genus *Migrammopes* (sensu lato) (Araneae, Uloboridae). Journal of Arachnology 12: 229-240.
- Paik, K. Y. 1978.** Araneae. Illustrated Fauna and Flora of Korea 21: 1-548.
- Shi, J. G. and C.D. Zhu. 1982.** [Description of two species of spider from Shanxi Province, China]. Journal of the Bethune Medical University 8: 64-65.
- Song, D. X. 1987.** Spiders from agricultural regions of China (Arachnida: Araneae). Agriculture Publishing House, Beijing, 376 pp.
- Song, D. X., J. Chen and M.S. Zhu. 1997.** Arachnida: Araneae. In: Yang, X. K. (ed.) Insects of the Three Gorge Reservoir area of Yangtze River. Chongqing Publishing House, 2, pp. 1704-1743.
- Song, D. X., M.S. Zhu and J. Chen. 1999.** The Spiders of China. Hebei University of Science and Technology Publishing House, Shijiazhuang, 640 pp.
- Song, D. X., M.S. Zhu and J. Chen. 2001.** The Fauna of Hebei, China: Araneae. Hebei University of Science and Technology Publishing House, Shijiazhuang, 510 pp.
- Yaginuma, T. 1986.** Spiders of Japan in color (new ed.). Hoikusha Publishing Co., Osaka.
- Yin, C. M., X.J. Peng, H. M. Yan, Y. H. Bao, G. Xuang, Q. S. Zhou and P. Liu. 2012.** Fauna Hunan: Araneae in Hunan, China. Hunan Science and Technology Press, Changsha, 1590 pp.
- Yoshida, H. 1982.** Spiders from Taiwan II. Three species of the genera *Hyptiotes* and *Migrammopes* (Araneae: Uloboridae). Proceedings of the Japanese Society of Systematic Zoology 22: 18-20.
- Yoshida, H. 2009.** Uloboridae, Theridiidae, Ctenidae. In: Ono, H. (ed.) The Spiders of Japan with keys to the families and genera and illustrations of the species. Tokai University Press, Kanagawa, pp. 142-147, 356-393, 467-468.
- Zhu, M. S. and B.S. Zhang. 2011.** Spider Fauna of Henan: Arachnida: Araneae. Science Press, Beijing, xxii+558 pp.